

OBJECTIVES/SPECIFIC AIMS: To build a multisite de-identified database of female adolescents, aged 12–21 years (January 2011–December 2012), and their subsequent offspring through 24 months of age from electronic health records (EHRs) provided by participating Community Health. **METHODS/STUDY POPULATION:** We created a community-academic partnership that included New York City Community Health Centers ($n=4$) and Hospitals ($n=4$), The Rockefeller University, The Sackler Institute for Nutrition Science and Clinical Directors Network (CDN). We used the Community-Engaged Research Navigation model to establish a multisite de-identified database extracted from EHRs of female adolescents aged 12–21 years (January 2011–December 2012) and their offspring through 24 months of age. These patients received their primary care between 2011 and 2015. Clinical data were used to explore possible associations among specific measures. We focused on the preconception, prenatal, postnatal periods, including pediatric visits up to 24 months of age. **RESULTS/ANTICIPATED RESULTS:** The analysis included all female adolescents ($n=122,556$) and a subset of pregnant adolescents with offspring data available ($n=2917$). Patients were mostly from the Bronx; 43% of all adolescent females were overweight (22%) or obese (21%) and showed higher systolic and diastolic blood pressure, blood glucose levels, hemoglobin A1c, total cholesterol, and triglycerides levels compared with normal-weight adolescent females ($p < 0.05$). This analysis was also performed looking at the nonpregnant females and the pregnant females separately. Overall, the pregnant females were older (mean age = 18.3) compared with the nonpregnant females (mean age = 16.5), there was a higher percentage of Hispanics among the pregnant females (58%) compared with the nonpregnant females (43.9%). There was a statistically significant association between the BMI status of mothers and infants' birth weight, with underweight/normal-weight mothers having more low birth weight (LBW) babies and overweight/obese mothers having more large babies. The odds of having a LBW baby was 0.61 (95% CI: 0.41, 0.89) lower in obese compared with normal-weight adolescent mothers. The risk of having a preterm birth before 37 weeks was found to be neutral in obese compared with normal-weight adolescent mothers (OR = 0.81, 95% CI: 0.53, 1.25). Preliminary associations are similar to those reported in the published literature. **DISCUSSION/SIGNIFICANCE OF IMPACT:** This EHR database uses available measures from routine clinical care as a "rapid assay" to explore potential associations, and may be more useful to detect the presence and direction of associations than the magnitude of effects. This partnership has engaged community clinicians, laboratory, and clinical investigators, and funders in study design and analysis, as demonstrated by the collaborative development and testing of hypotheses relevant to service delivery. Furthermore, this research and learning collaborative is examining strategies to enhance clinical workflow and data quality as well as underlying biological mechanisms. The feasibility of scaling-up these methods facilitates studying similar populations in different Health Systems, advancing point-of-care studies of natural history and comparative effectiveness research to identify service gaps, evaluate effective interventions, and enhance clinical and data quality improvement.

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A mixed-methods evaluation to improve sustainability of community health coalition partnerships, activities, and impact on county-level health

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OBJECTIVES/SPECIFIC AIMS: Community health coalitions (CHC) aim to improve local cultures of health, health behaviors, and health outcomes. However, challenges sustaining partnerships and activities limit CHC impact. Traditional CHC evaluations survey members about perceived effectiveness, failing to capture underlying network structures and community health outcomes. Thus, we applied a mixed-methods evaluation in eight rural Indiana CHC, triangulating social network analysis [(SNA), conducted in 2017], functioning effectiveness [Coalition Self-Assessment Survey (CSAS), also 2017], and latest county health statistics (2015–2016) to assess existing CHC building efforts, inform best practices, and facilitate the adoption of evidence-based programming. **METHODS/STUDY POPULATION:** Across the eight rural Indiana CHC, relationships between the three evaluation components were analyzed using Pearson's correlations. We are now collaborating with Purdue's Nutrition Education Program Community Wellness Coordinators to scale up evaluation efforts throughout Indiana. **RESULTS/ANTICIPATED RESULTS:** CHC effectiveness was positively correlated with the average number of connections CHC members held in the network (mean indegree) and negatively correlated with the presence of a network broker (eigenvector centrality). However, effective leadership was positively correlated with opioid

deaths and treatment, food insecurity, smoking during pregnancy, lack of healthcare coverage, and fair/poor health status, and negatively correlated with prenatal care. Effective operating norms was positively correlated with smoking during pregnancy and preterm births, and negatively correlated with prenatal care. Effective action outcomes was positively correlated with opioid deaths and treatments, smoking during pregnancy, preterm births, and fair/poor health status, and negatively correlated with respondents reporting they had no personal doctor. **DISCUSSION/SIGNIFICANCE OF IMPACT:** Interestingly, CHC effectiveness was positively correlated with poor county health outcomes related to infant well-being. Thus, CHC may develop in counties with a high unmet need for effective pregnancy and infant services. Alternatively, the prevalent CHC focus on obesity prevention may eclipse programmatic efforts to improve infant well-being. Longitudinal evaluations and scaling up evaluation efforts across Indiana are being pursued to clarify trajectories and inform best practices, which in turn should provide recommendations for network structures to improve CHC effectiveness and county health.

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A multi-stakeholder analysis on preparing future pediatricians to improve the mental health of children

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OBJECTIVES/SPECIFIC AIMS: (1) Develop a concept map of ideas from diverse stakeholders on how to best improve training programs. (2) Assess the degree of consensus amongst stakeholders regarding importance and feasibility. (3) Identify which ideas are both important and feasible to inform policy and curricular interventions. **METHODS/STUDY POPULATION:** Concept mapping is a 4 step approach to data gathering and analysis. (1) Stakeholders [pediatricians (peds), MH professionals (MHPs), trainees, parents] were recruited to brainstorm ideas in response to this prompt: "To prepare future pediatricians for their role in caring for children and adolescents with mental and behavioral health conditions, residency training needs to...". (2) Content analysis was used to edit and synthesize ideas. (3) A subgroup of stakeholders sorted ideas into groups and rated for importance and feasibility. (4) A large group of anonymous participants rated ideas for importance and feasibility. Multidimensional scaling and hierarchical cluster analysis grouped ideas into clusters. Average importance and feasibility were calculated for each cluster and were compared statistically in each cluster and between subgroups. Bivariate plots were created to show the relative importance and feasibility of each idea. The "Go-Zone" is where statements are feasible and important and can drive action planning. **RESULTS/ANTICIPATED RESULTS:** Content analysis was applied to 497 ideas resulting in 99 that were sorted by 40 stakeholders and resulted in 7 clusters: Modalities, Prioritization of MH, Systems-Based, Self-Awareness/Relationship Building, Clinical Assessment, Treatment, and Diagnosis Specific Skills. In total, 216 participants rated statements for importance, 209 for feasibility: 17% MHPs, 82% peds, 55% trainees. There was little correlation between importance and feasibility for each cluster. Compared with peds, MHPs rated Modalities, and Prioritization of MH higher in importance and Prioritization of MH as more feasible, but Treatment less feasible. Trainees rated 5 of 7 clusters higher in importance and all clusters more feasible than established practitioners. **DISCUSSION/SIGNIFICANCE OF IMPACT:** Statements deemed feasible and important should drive policy changes and curricular development. Innovation is needed to make important ideas more feasible. Differences between importance and feasibility in each cluster and between stakeholders need to be addressed to help training programs evolve.

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An application of the payback framework to evaluate the outcomes of pilot projects supported by the Georgia Clinical and Translational Science Alliance from 2007 to 2014

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OBJECTIVES/SPECIFIC AIMS: We will use a structured evaluation framework, the payback framework, to document the outcomes of 15 case studies of pilot projects supported by Georgia CTSA from 2007 to 2014. **METHODS/STUDY POPULATION:** We will use a case study approach including bibliometric analyses of publications associated with the selected projects, document review (e.g., investigator curriculum vitae, biannual project reports) and investigator interviews. **RESULTS/ANTICIPATED RESULTS:** We will document outcomes in 5 "payback categories": (1) knowledge, (2) research targeting, capacity